

MISCELLANEOUS NOTES

1. MOVEMENT OF NILGIRI LANGUR BETWEEN FOREST FRAGMENTS IN THE ANNAMALAI HILLS

On 22nd December, 1994, as part of an ongoing research programme, GU was observing the activities of the Lion-tailed macaque at Puthuthottem Cardamom Estate, at Valparai, Coimbatore district. At around 1600 hours while searching for an adult male Lion-tailed macaque (which always spent most of the time away from the group), GU heard the threatening call of an adult male Lion-tailed macaque. GU moved in the direction of the call and saw the Lion-tailed macaque threatening and chasing away a Nilgiri langur on a *Cullinea exelsa* tree. We were surprised to spot a Nilgiri langur in that area because the estate workers had informed us that the last time they had sighted a group of Nilgiri langurs was ten years ago. It had then comprised of 6 to 10 individuals and subsequently been reduced to two in 1989; later they also had disappeared.

In the early 1920's the Puthuthottem forest was a part of a continuous rain forest in the Annamalai Hills. This forest was under private ownership and the surrounding areas were clear-felled for tea cultivation. During clear-felling this patch of forest (60ha in area) was left with a good forest cover, which was under planted with cardamom. Later this forest fragment had been selectively felled many times, last in 1992. In 1980s intensive logging caused heavy damage to the forest and affected the habitat of the Nilgiri langur and Lion-tailed macaque there. Even though the trees logged had a high timber value they were of low fruit value and had affected the Nilgiri langur more than the Lion-tailed macaque. Moreover, the Nilgiri langurs were more intensively hunted than Lion-tailed macaque, during 1970's and early 1980's bringing down its population, and eventually leading to its extinction. Lion-tailed macaques, on the other hand, managed to survive since many fruit trees were left behind. Being more adapted to human

presence it also utilized the surrounding coffee plantations, feeding on coffee beans and *Mesopsis* spp., Cardamom cultivation was abandoned after logging in 1982, after which wood cutting by local villagers have further degraded the forest. The Lion-tailed macaques have also been on the decline from 54 in 1991 to 34 at present, due to low birth rate from low food availability, high mortality during logging and predation by feral dogs.

After 22nd December, we started monitoring the presence of the Nilgiri langur every day and made some observation on its activities. It was very shy, restless and made loud alarm calls on seeing us. Since 26th December evening, we have not been able to locate the Nilgiri langur in the forest fragment.

The sighting of a male Nilgiri langur in the forest fragment is interesting for three reasons: Firstly it shows the ability of Nilgiri langur to move between forest fragments across a human dominated landscape; Puthuthottem Estate is a totally isolated forest fragment the nearest forest with Nilgiri langur being about 3 km away; the intervening area is covered with tea plantation and has human settlements. Secondly, this movement by males could to a very large extent curtail the effects of inbreeding in small fragmented forests. Thirdly, female Nilgiri langur, also perhaps emigrate like the male, the ability to move across man made landscapes enables the species to recolonise forest fragments from which the species had disappeared.

January 19, 1996

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